

CLAIMS

1. Digital television network, of the kind comprising at least one broadcaster computer comprising data storage means and means for transmitting digital television applications, and at least one device for executing at least one digital television application, characterized in that it comprises:
- an agencies centre (4) installed on at least the broadcaster computer (1) so as to create, modify and/or broadcast a television application;
  - a transcoder or generator (11) for transcoding the digital television applications emanating from the agencies centre (4);
  - customer stations or consoles (2) for which the applications emanating from the transcoder (11) and broadcast by at least one broadcasting channel (3) are destined.
2. Network according to Claim 1, characterized in that the agencies centre (4) comprises:
- an agencies manager comprising a means of activating one at least of the agencies;
  - a media agency (41) comprising means for editing, in particular retrieving means, centralizing means, and archiving means, and means for organizing the elements intended to make up at least one digital television application,
  - a programmes agency (42) comprising means for composing a digital television application according to a predefinable tree and predefinable navigation, means for updating an application and means for determining broadcasting rules cooperating with means for producing programme execution lists (playlists) and with

means for indexing and archiving the programmes and/or execution lists;

- a sites agency (43) comprising means for distributing and means for broadcasting programmes created or updated in the programmes agency.

3. Network according to Claim 2, characterized in that each agency (41-43) comprises:

- a menu bar (45);
- a hierarchical list (46);
- a properties zone (48) for the elements selected from the agency;
- a contents display zone (47).

4. Network according to Claim 3, characterized in that the properties zone comprises:

- a zone of types of elements to be selected,
- a zone for editing the name of the element to be selected;
- a zone for editing the values of the properties of the selected element.

5. Network according to Claim 3, characterized in that the content display zone comprises control means for selecting a mode of display in Table form, in Zoom form, in Caption form and in single or multiple Selection mode.

6. Network according to one of Claims 2 to 5, characterized in that the agencies manager also comprises an access rights manager which limits access of the agencies centre to the resources and target profiles according to the set where it is installed.

7. Network according to Claim 2, characterized in that the media agency comprises means for executing one at least of the following functions:

5 ASSOCIATE: for filling in an element of another agency with the content of the medium;

EDIT: for modifying the content of the medium;

REPLACE: for changing the physical file of the medium.

- 10 8. Network according to Claim 7, characterized in that the media agency also comprises means for executing at least one of the following functions: Display, New, New/Folder, New/Medium, Rename/Modify, Delete, Copy, Duplicate, Move, Export, Import, Add, Add/Video, Add/Picture, Add/Audio, Add/Text, Add/File, Replace.

- 15 9. Network according to Claim 7 or 8, characterized in that the media agency comprises means for processing one at least of the following objects: Folder, Video, Picture, Sound, Text, Internet file, database file.

- 20 10. Network according to Claim 2, characterized in that the programmes agency comprises means for executing one at least of the following functions:

25 GENERATE for initiating the generation of the source code and sending it to the generator;

DISPLAY for displaying the scene such as on a TV screen;

MEDIA AGENCY for opening the media agency while automatically pointing to the medium associated with the current element;

30 CHANGE MEDIUM for selecting another medium from the media agency and associating it with the current element;

EDIT THE CONTENT for creating or modifying the content of the associated medium and hence of the current element;

EMPTY THE CONTENT for breaking the link-up between associated medium and the current element.

11. Network according to Claim 10, characterized in that the programmes agency also comprises means for executing at least one of the following functions: Display, New, New/Folder, New/Element, New/Programme, Rename/Modify, Delete, Delete the link-ups, Copy, Paste, Duplicate, Move, Export, Import, Medium, Content, and others still.
12. Network according to Claim 10 or 11, characterized in that the programmes agency comprises means for processing one at least of the following objects: Folder, PLAYLIST execution list, TIMED PLAYLIST synchronized execution list, "CITYLINE" interactive directory, Catalogue, Module for executing programme lists (JUKE-BOX), Advertisements module (ADS-INSERT), Training, Module for managing stock market programmes (INFO-STOCK), Weather Services, electronic commerce (e-commerce), electronic banking (e-bank), electronic magazine (e-zine), and others still.
13. Network according to Claim 10, 11 or 12, characterized in that the programmes agency comprises means for processing one at least of the following elements: Structure, Video, Sound, Picture, Text, Design, Page, List, Slide Show, Scene, Routing, Instruction, and others still.

14. Network according to Claim 1, characterized in that the agencies centre (4) and the generator (11) are installed on at least two separate sets or stations connected by a communications network.

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15. Network according to Claims 6 and 14, characterized in that the agencies centre (4) is distributed between at least one main agency (61) and one or more secondary agencies (61-1 to 61-n) on at least one implementation system.

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16. Network according to Claim 15, characterized in that the codes generator (65) cooperates in a production system (63) with a General agency (64) for the generation of the applications and with a module for managing the data and real-time streams (66).

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17. Network according to Claim 16, characterized in that the production system (63) is connected by a bidirectional link with a Distribution system (67) comprising in particular a stream server (68) itself connected to at least one broadcasting network (69-0 to 69-P) with customer stations (70-0 to 70-p).

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18. Network according to one of the preceding claims, characterized in that the codes generator (11, 65) comprises means for processing each digital television application, which itself comprises:

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- means for processing parameters individual to each application and valid for all the other component elements such as TV Objects;
- means for processing broadcasting parameters making it possible to identify the channel on the customer station;

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- means for processing screens of the application;
- means for processing data of the application.

5 19. Network according to the preceding claim, characterized in that the means for processing data of the application comprise:

- means for processing an application Name;
- means for processing an application ID identifier;
- means for processing a Palette identifying the colours of TV Objects displayed;
- means for processing a code for access to the application being broadcast (DVB trio);
- means for processing a List of TV scenes each of a type chosen from among in particular:
  - 15 • single scenes;
  - multipage scenes;
  - scenes with menu-list.

20 20. Network according to Claim 19, characterized in that the means for processing a list of TV scenes also comprise means for processing at least one single scene which comprise:

- means for processing a Name designating the scene;
- means for processing a Duration of display of the scene;
- 25 • means for processing a List of TV Objects making up the scene.

30 21. Network according to Claim 19, characterized in that the means for processing a list of TV scenes also comprise means for processing at least one multipage scene which comprise:

- means for processing a Name designating the scene;

- means for processing a Duration of display of the scene;
- means for processing a List of TV Objects making up at least one page of the scene;
- means for processing a List of TV pages making up the scene.

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22. Network according to Claim 19, characterized in that the means for processing a list of TV scenes also comprise means for processing at least one multipage scene which comprise:

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- means for processing a Name designating the scene;
- means for processing a Duration of display of the scene;
- means for processing a List of TV Objects making up at least one page of the scene;
- means for processing a List of TV menu-lists making up the scene.

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23. Network according to Claim 21, characterized in that the means for processing a List of TV pages making up the scene comprise means for processing at least one TV page which comprise:

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- means for processing the Name designating the TV page;
- means for processing a Duration of display of the TV page;
- means for processing a List of TV Objects individual to the TV page.

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24. Network according to Claim 22, characterized in that the means for processing a List of TV menu-lists making up the scene comprise means for processing at least one TV menu-list which comprise:

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- means for processing a List name of the TV menu-list;

- means for processing a List of TV headings;
- means for processing a List of TV Objects individual to the TV scene with which the TV menu-list is associated.

5 25. Network according to Claim 24, characterized in that the means for processing a List of TV headings also comprise:

- means for processing a heading Name of the associated TV menu-list;
- means for processing a List of TV Objects representing the heading;
- means for processing a TV Object containing the TV page definition associated with the heading.

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15 26. Network according to one of Claims 19 to 25, characterized in that the means for processing a TV Object or lists of TV Objects manipulate one of the types of TV Objects selected from among: text objects, design objects, picture objects, routing objects, instruction objects.

20 27. Network according to Claim 1, characterized in that the generator or transcoder comprises means for splitting into unit blocks compatible with the constraints of the target systems the programmes emanating from the implementation and/or production agencies, each unit block corresponding to a scene, and in that it comprises means for producing as a function of each unit block a plurality of programme lines in low-level language, each television programme line comprising at least one of the following elements:

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- identification;
- type;
- content;



- properties;
- link-ups.

5 28. Network according to claim 1, characterized in that the agencies centre (4) or the transcoder or generator (11) comprise means for calling (function « Edit the content ») resources of a specific operating system upon any of the stations in which the network is installed.

10 29. Network according to claim 2, characterized in that the agencies (41, 42, 43) cooperate in a memory for static data (8) in which is written at least one interactive television application model so that an interactive television application can be build, based on selection of an  
15 inteactive television application model and activation of icons and pop-up menus to set up the inteactive television application model.

20 30. Network according to claim 2, characterized in that the centre agencies (4) is producing an interactive television application which is presented to an input of a task descriptions generator (30) like a XML compiler, an output of which is connected to the transcoder (11) suited to a specific platform (StreamCast®, OpenTV®,  
25 MediaHighway®) under which a customer station (2) is running and in that the transcoder comprises a trial transcoding output connected to a correcting input of an error manager module (31) so that the interactive television application can be corrected.

30 31. Network according to claim 15, characterized in that the the agencies manager in any of the main (61) or secondary

(61-i) agencies is comprising a specific access rights manager which limits access of the agencies to the available ressources and projects, to favourish cooperative working, the various agencies (60-0 – 60-N ; 61, 61-1 – 61-i, 62, 62-i) being connected by a bidirectional link.